

**STUDY ON SPAYING (OVARIOHYSTERECTOMY) Of A CAT
AT TEACHING & TRAINING PET HOSPITAL AND
RESEARCH CENTER (TTPHRC),DHAKA**



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FACULTY OF VETERINARY MEDICINE
CHATTOGRAM VETERINARY & ANIMAL SCIENCES UNIVERSITY
KHULSHI, CHATTOGRAM -4225
NOVEMBER-2023

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ABSTRACT

Ovariohysterectomy (spaying) is the surgical removal of ovaries and uterus of female cat for the purpose of their birth control and prevent potential feline reproductive diseases. The aim of this case study was to describe the standard open surgical method of spaying in cat. A 3-year-old Persian female cat weighing 3 kg was brought to the Teaching and Training Pet Hospital and Research Centre (TTPHRC), Purbachal, Dhaka with the chief complaints of unwanted breeding and aggressiveness. The spaying was done under general anesthesia following standard open surgical method. The operation was successful and systemic antibiotic (ceftriaxone), analgesic (meloxicam) and antihistaminic (pheniramine maleate) were prescribed as post-operative care. In addition, povidone iodine ointment was recommended until complete the wound healing and a clean tidy squeeze cage was suggested to restrict the movement. This spaying procedure for cat was remarkably easy, reasonably low cost, and high rate of success so far.

Key words: Anesthesia, ovariohysterectomy, cat

Chapter:1-INTRODUCTION

Ovariohysterectomy (OVH) is a medical term used to indicate spaying of a female cat. It is a perfect tool to control over population of cat that has access to the outdoors to prevent any unwanted pregnancy. In this procedure, the ovaries and uterus are removed completely in order to sterilize a female cat (Omeran et al., 2014). Spaying is indicated for prevent oestrous & unwanted offspring, prevention and treatment of several diseases, prevention of mammary tumors or congenital anomalies.

Spaying is usually performed at the age of 4-8 month but preferred at the age of 6 month or more. Under general anesthesia, the surgical procedure known as spaying is carried out. A relatively small incision is created during the procedure, usually in the abdomen's midline just below the umbilicus. The size of the incision depends on the surgeon and the size of the animal. During this treatment, both the ovaries and the uterus are removed simultaneously. Several layers of sutures will be placed across the surgical wound before it is closed. Skin sutures are frequently inserted and taken out seven to ten days later.

There have already been some research on cat spaying in Bangladesh (Azizunnesa et al., 2017, Talukder et al. 2021). However, more research is required to learn more about the updated methods for cat spaying and to learn about these methods I am performing this study.

Objective:

The purpose of this case study is to describe, assess and use the conventional surgical method of cat spaying as an effective method of birth control.

Chapter:2-Materials and Method

2.1 Place and time:

I was at Teaching & Training Pet Hospital and Research Center as a part of our Internship programme for 10 days. There in the surgery unit of TTPHRC the surgery was done at 02.10.2023.

2.2 Information of the patient:

Patient's name: Bon

Body weight: 3kg

Age: 3year

2.3 Clinical examination:

A complete physical examination was carried out before the surgery, and the cat was found to have a normal body condition. It had a respiration rate of 20 per minute, a heart rate of 72 beats per minute and pink mucous membranes with no signs of dehydration. No blood test or ultrasonography was performed.

2.4 Anesthesia and control:

Both physical and chemical methods were used to control the cat. Pre-anesthetic xylazine (1 mg/kg body weight) was injected to relax and sedate the cat. The surgical site was shaved with shaving blade, cleaned and sterilized properly by using alcohol, povidone iodine and saline (Fig-1). Then the surgical site was prepared using drape and towel clamps (Fig-2).



Fig 1: Shaving and cleaning the surgical site



Fig 2: Preparation of the surgical site

The animal was given regular saline intravenously. As a general anesthetic, a 1:4 mixture of Diazepam and Ketamine hydrochloride was delivered intravenously.

2.5 Instruments and appliances used for aseptic surgery:

- Scalpel
- Scissors (both straight and curve)
- Needle holder
- Needle (both traumatic and atraumatic)
- Alli's tissue forceps
- Rat tooth forceps
- Artery forceps
- Retractors
- Towel clamps
- Spaying hook

Appliances for aseptic surgery:

- Towel and drape
- Cotton and gauge
- Mop
- Povidone
- Alcohol
- Shaving blade

2.6 Operation procedure:

In back of the umbilicus, a 1 cm midline incision was performed. Incisions were made in the skin, subcutaneous tissue, muscle, and peritoneum to expose the abdominal cavity(Fig-3).After the incision, the index finger was introduced into the uterine horn, the broad ligament, and the abdominal cavity facing the left flank. It was then taken out of the body's exterior (Fig-4).



Fig 3: Incision at the Surgical site



Fig 4: Exposing the ovary and uterus

To do the ligation, the ovary was first held between the thumb and index finger, and then it was withdrawn. Double ligation with chromic catgut was used to ligate the ovarian pedicle. The attachment between the ovary and ligature was separated. In a similar way, the other ovary was removed. After the uterus was taken from the abdominal cavity, its body was tied off with chromic catgut and removed (Fig-5). Careful inspection of the uterine stump was performed to stop any bleeding. Each of the peritoneum, muscles, and fascia were given their own set of sutures using 1-0 catgut in a straightforward pattern of continuous suturing. After that, subcuticular suture was given with 2-0 catgut to close the incision (Fig-6).



Fig 5: Excision of the ovary and uterus



Fig 6: Closing the incised area

2.7 Post-operative care:

Antiseptic cream (Oint. Viodin®) was applied regularly on the incision site. Antibiotic ceftriaxone (20mg/Kg body weight) and antihistaminic pheniramine maleate (0.5mg/Kg body weight) was administered intramuscularly for 5 days. Analgesic meloxicam (0.2mg/Kg body weight) was administered subcutaneously for 3 days. It was advised to keep the animal in a clean squeeze cage under monitoring for seven days.

Chapter:3-Result & Discussion

The procedure went well and there were no difficulties in the removal of the uterus and both ovaries. Since post-operative care was appropriately maintained, no post-operative complications were discovered.

The animal underwent the surgical technique that was detailed in this case in order to make it more docile and to stop it from having unintended offspring. Previous study also mentioned the effectiveness of spaying as a tool of preventing reproduction and making the animal docile (Janssens and Janssens, 1991). The animal is also protected from uterine infections and other cancers that affect the reproductive system when it is spayed.

The surgery is performed under general anesthesia. The abdominal area is cleaned after being cut and shaved.

In the case of dogs and cats, a tiny incision is made along the midline, where there are fewer blood veins (Jason, 2009). The procedure was carried out in this investigation in a similar way. There is a general surgical pack used to detect the uterus and uterine horns. The uterus and ovaries are totally removed and the blood vessels are tied up. The outer layer of the skin was then closed after the body wall's inner layer was closed with absorbable suture material. Neither problems nor any more bleeding was discovered in this case.

It was a successful operation which was similar with the operation discussed in other studies (Janssens and Janssens, 1991; Azizunnesa et al., 2017)

Chapter:4-Conclusion

Spaying a cat is a classic surgical procedure that has been found to be the most effective. It is a simple, quick, practicable, field applicable and reliable method for spaying in cat. In this study, a successful and problem-free procedure was achieved with appropriate maintenance of general anesthetic and post-operative care. In the field, this surgical method of spaying the cats could be advised to lessen their aggression and stop them from reproducing.

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Biography

This is Md Shahadat Hossain, the eldest child of Md Mazaharul Huq and Ambia Akter, is completing his Doctor of Veterinary Medicine (DVM) degree at Chattogram Veterinary and Animal Sciences University, Faculty of Veterinary Medicine. He passed the Secondary School Certificate Examination (SSC) in 2014 from Chittagong Collegiate School with a grade point average of 5.00 and the Higher Secondary Certificate Examination (HSC) in 2016 from Chattogram College with a grade point average of 5.00 out of 5.00. Currently, he is completing his internship of one year. He is keen to become a qualified veterinarian in the future and has a tremendous passion for research.

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